

Supplementary Information

Non-enzymatic Amperometric Sensing of Glucose by Employing Sucrose Templated Microspheres of Copper Oxide (CuO)

Mohit Saraf^a, Kaushik Natarajan^a and Shaikh M. Mobin^{a,b,c*}

^aDiscipline of Material Science and Engineering, Indian Institute of Technology Indore, Simrol, Indore -452020, India

^bDiscipline of Chemistry, School of Basic Sciences, Indian Institute of Technology Indore, Simrol, Indore-452020, India

^cDiscipline of Bioscience and Biomedical Engineering, Indian Institute of Technology Indore, Simrol, Indore-452020, India

E-mail: xray@iiti.ac.in

Tel: +91 731 2438 762

Figure Captions:

Fig. S1 Nitrogen adsorption-desorption isotherm of CMS, inset shows the table of obtained parameters.

Fig. S2 Size distribution of CMS obtained by DLS.

Fig. S3 XRD spectra of (a) CSPE and (b) MCSPE.

Fig. S4 Amperometric response of MCSPE towards successive injections of glucose in (a) 30 mM, (b) 50 mM and (c) 100 mM NaOH solution.

Table S1. Circuit parameters obtained from fitting of EIS spectra.

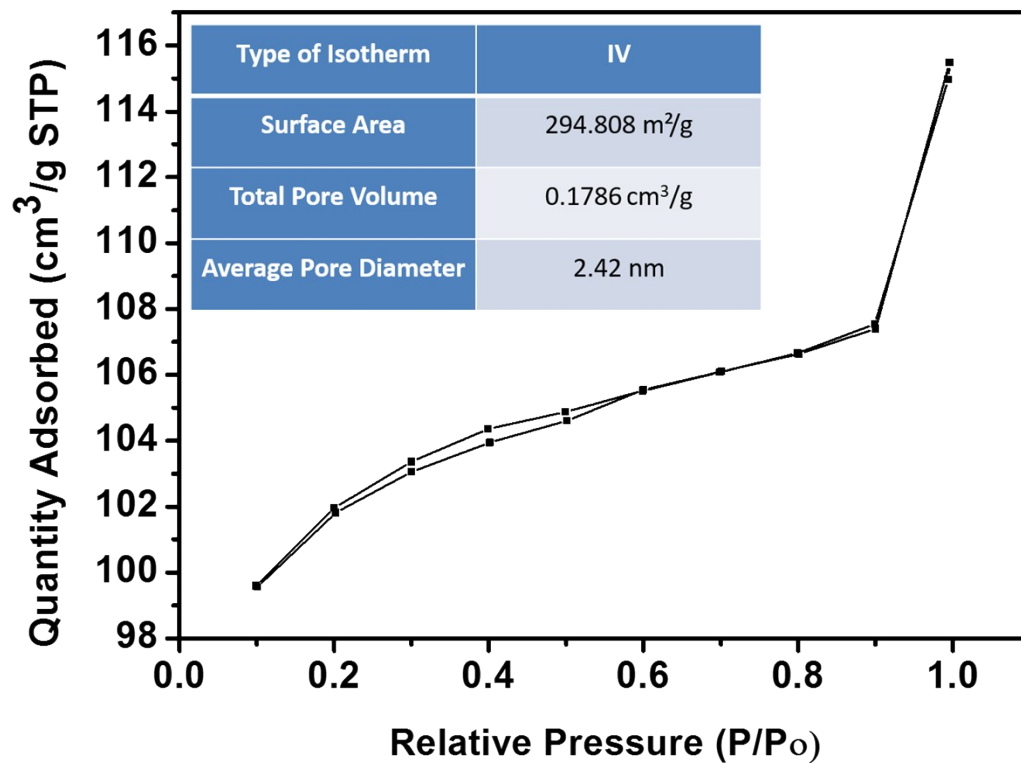


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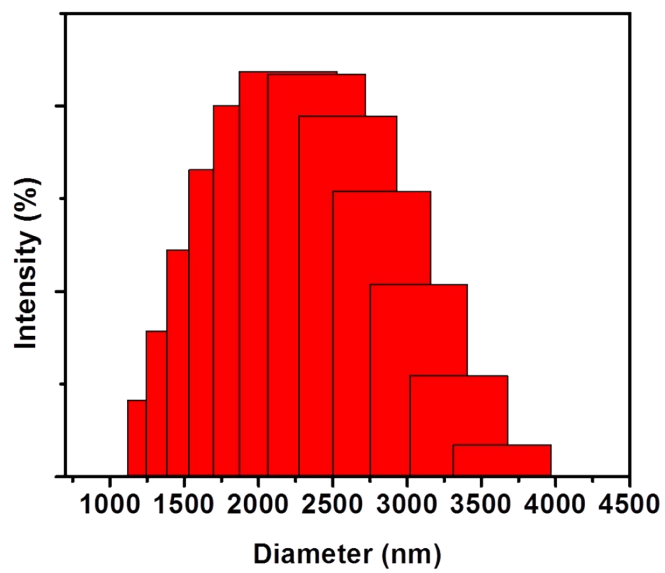


Fig. S2 Size distribution of CMS obtained by DLS.

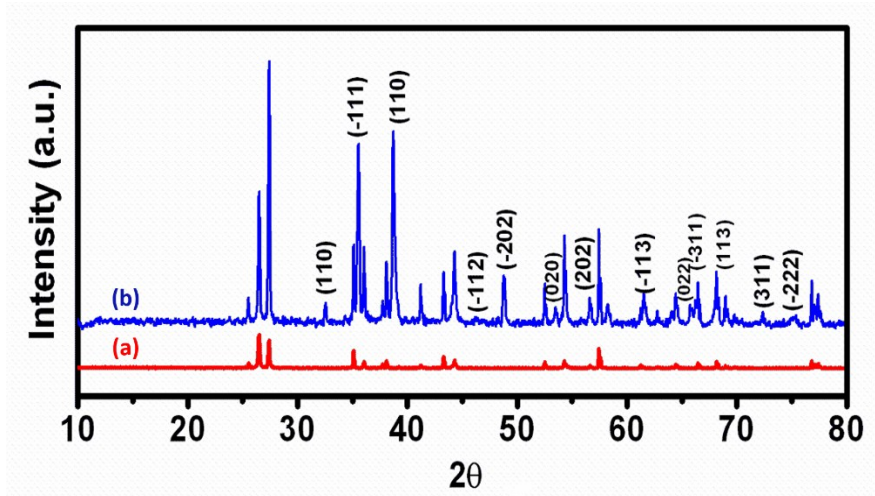


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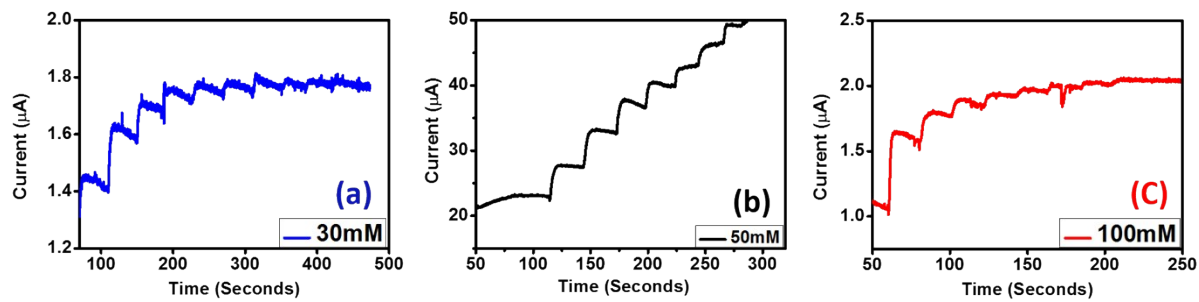


Fig. S4 Amperometric response of MCSPE towards successive injections of glucose in (a) 30 mM, (b) 50 mM and (c) 100 mM NaOH solution.

Table S1. Circuit parameters obtained from fitting of EIS spectra.

Circuit measurement	Bare electrode without Glucose	Bare Electrode with Glucose	MCSPE without Glucose	MCSPE with glucose
R_s (Ω)	172	198	177.9	157.3
R_{ct} (Ω)	2787	1835	1364	1156
C_{dl} (μF)	57.19	30.09	395	470

Where:

R_s corresponds to resistance due to electrolyte and test set up.

R_{ct} tells the charge transfer resistance inside the material.

C_{dl} is the capacitance due to formation of depletion region in semiconductor.